

WHAT IS CLAIMED IS:

5

1. A method for instruction processing, comprising:

10 a first step of identifying a classification of a functional unit which can execute a basic instruction;

15 a second step of determining whether said basic instruction can be assigned to a logical instruction slot through checking a relationship between said classification of said functional unit and said logical instruction slot; and

20 a third step of assigning, to an instruction slot, said basic instruction determined to be assignable to said logical instruction slot.

20

25 2. The method for instruction processing as claimed in claim 1, wherein said first step is divided into a first sub-step of identifying an instruction category of a basic instruction, and a second sub-step of identifying a classification of a functional unit which can execute said instruction category.

30

35 3. The method for instruction processing as claimed in claim 1, further comprising a step, prior to said third step, for checking a relationship between said basic

40063202.001.CREATION

instruction that can be assigned to said logical instruction slot and other basic instructions to be assigned to other logical instruction slots.

5

4. The method for instruction processing
as claimed in claim 2, further comprising
10 a step, prior to said third step, for
checking a relationship between said basic
instruction that can be assigned to said logical
instruction slot and other basic instructions to be
assigned to other logical instruction slots.

15

5. The method for instruction processing
20 as claimed in claim 3, wherein said second step
includes a step of identifying said logical
instruction slot having a lowest numeral determined
to be assignable.

25

6. The method for instruction processing
as claimed in claim 4, wherein said third step
30 includes a step of identifying said logical
instruction slot having a lowest numeral determined
to be assignable.

35

7. The method for instruction processing

2002-07-09 14:22:00

as claimed in claim 3, wherein all of said steps are repeated for all instruction slots.

5

8. The method for instruction processing as claimed in claim 4, wherein all of said steps are repeated for all instruction slots.

10

15

9. A computer program, comprising:
a first step of identifying a classification of a functional unit which can execute a basic instruction;

20

a second step of determining whether said basic instruction can be assigned to a logical instruction slot through checking a relationship between said classification of said functional unit and said logical instruction slot; and

25

a third step of assigning, to an instruction slot, said basic instruction determined to be assignable to said logical instruction slot.

30

10. The computer program as claimed in claim 9, wherein said first step is divided into a first sub-step of identifying an instruction category of a basic instruction, and a second sub-step of identifying a classification of a functional unit which can execute said instruction category.

35

11. The computer program as claimed in claim 9, further comprising

5 a step, prior to said third step, for
checking a relationship between said basic
instruction that can be assigned to said logical
instruction slot and other basic instructions to be
assigned to other logical instruction slots.

10

12. The computer program as claimed in
15 claim 10, further comprising

20 a step, prior to said fourth step, for
checking a relationship between said basic
instruction that can be assigned to said logical
instruction slot and other basic instructions to be
assigned to other logical instruction slots.